

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Withdrawn - Currently Amended) The pretreatment method according to claim 19, removing contaminants on the surface of the metal sample by sputtering occurs while at least one of the anodes ~~and the cathode~~ is cooled.
2. (Withdrawn - Currently Amended) The pretreatment method according to claim 1, wherein the metal sample is at a side of ~~a cathode~~ the holder and a plurality of anodes face the ~~cathode~~ metal sample, and at least one of the anodes is cooled for sputtering.
3. (Withdrawn - Currently Amended) The pretreatment method according to ~~claim 1,~~ claim 15, wherein the metal sample is at a side of ~~an anode~~ the holder and a plurality of cathodes face the ~~anode~~ metal sample, and at least one of the cathodes is cooled for sputtering.
4. (Withdrawn) The pretreatment method according to claim 1, comprising analyzing an element in the metal sample selected from the group consisting of carbon, oxygen, nitrogen and sulfur.
5. (Withdrawn) The pretreatment method according to claim 2, comprising analyzing an element in the metal sample selected from the group consisting of carbon, oxygen, nitrogen and sulfur.
6. (Withdrawn) The pretreatment method according to claim 3, comprising analyzing an element in the metal sample selected from the group consisting of carbon, oxygen, nitrogen and sulfur.
7. (Withdrawn) The pretreatment method according to claim 1, wherein the element analysis of the metal sample is by fusion analysis or combustion analysis.

8. (Withdrawn) The pretreatment method according to claim 2, wherein the element analysis of the metal sample is by fusion analysis or combustion analysis.

9. (Withdrawn) The pretreatment method according to claim 3, wherein the element analysis of the metal sample is by fusion analysis or combustion analysis.

10. (Withdrawn) The pretreatment method according to claim 4, wherein the element analysis of the metal sample is by fusion analysis or combustion analysis.

11. (Withdrawn) The pretreatment method according to claim 5, wherein the element analysis of the metal sample is by fusion analysis or combustion analysis.

12. (Cancelled).

13. (Currently Amended) A pretreatment apparatus for element analysis of a metal sample, comprising:

a ~~cathode holder~~ for holding a metal sample, the metal sample functioning as a cathode for sputtering;

anodes arranged in a face to face arrangement with an entire side of ~~the cathode-metal sample~~ and on opposing sides of the metal sample-cathode for sputtering;

a pretreatment chamber for storing the ~~cathode holder~~, the anodes and the metal sample under an inert gas atmosphere; and

a cooling device for cooling at least one of the anodes ~~or the cathode~~, the cooling device excluding cooling of the holder and the metal sample, and the cooling device set at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering.

14. (Currently Amended) The pretreatment apparatus according to claim 13, comprising a plurality of the anodes arranged to counter the ~~cathode metal sample~~, and the cooling device cools at least one of the anodes.

15. (Currently Amended) An analyzing apparatus for element analysis of a metal sample, comprising:

~~an anode~~ a holder for holding a metal sample, the metal sample functioning as an anode for sputtering;

cathodes arranged to counter the ~~anode~~ metal sample for sputtering;

a pretreatment chamber for storing the ~~anode~~ holder, the cathodes and the metal sample under an inert gas atmosphere;

a cooling device for compulsively cooling at least one of the cathodes ~~or the anode~~;

a reaction chamber, connected to the pretreatment chamber through a shutter, for heating the metal sample; and

a detector for detecting trace elements given off by the heated metal sample, and the cooling device excluding cooling of the holder and the metal sample.

16. (Currently Amended) The analyzing apparatus according to claim 15, comprising a plurality of the cathodes arranged to counter the ~~anode~~ metal sample, and the cooling device cools at least one of the cathodes.

17. (Currently Amended) An analyzing apparatus for element analysis of a metal sample, comprising:

a pretreatment chamber having means for removing contaminants on the surface of the metal sample by sputtering;

means for cooling at least one target site, at least one of the target sites including at least one of ~~electrodes for sputtering~~, counter electrodes for sputtering, ~~and a holder~~; and

a reaction chamber connected to the pretreatment chamber having means for heating the metal sample and means for detecting trace elements given off by the heated

sample, the means for cooling excluding cooling of the holder and the metal sample, and the means for cooling set at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering.

18. (Previously Presented) The pretreatment apparatus according to claim 13, further comprising:

a reaction chamber, connected to the pretreatment chamber through a shutter, for heating the metal sample; and

a detector for detecting trace elements given off by the heated metal sample.

19. (Currently Amended) A pretreatment method for element analysis of a metal sample, comprising:

holding the metal sample using ~~a cathode~~ a holder, the metal sample functioning as a cathode;

sputtering using anodes arranged to counter ~~the cathode~~ metal sample;

providing an inert gas atmosphere and a pretreatment chamber that stores the anodes, ~~the cathodes holder,~~ and the metal sample; and

cooling, at least one of the anodes ~~or the cathode,~~ at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering, the cooling excluding cooling of the holder and the metal sample.

20. (Currently Amended) A pretreatment apparatus for element analysis of a metal sample, comprising:

means for holding the metal sample using ~~a cathode~~ a holder, the metal sample functioning as a cathode;

means for sputtering using anodes arranged to counter ~~the cathode~~ metal sample;

means for providing an inert gas atmosphere and a pretreatment chamber that stores the anodes, the ~~cathodes~~, holder, and the metal sample; and

means for cooling, at least one of the anodes ~~or the cathode~~, at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering, the means for cooling excluding cooling of the holder and the metal sample.